

## PROCEEDINGS OF THE CLUB

MEETING OF JANUARY 6, 1931

The meeting was called to order at the American Museum of Natural History at 8.30 p.m. by President Sinnott with forty-five members present. Minutes of the meeting of December 17, 1930, were read and approved.

The following people were unanimously elected to membership in the club: Mr. Max A. Elwert, Horticulturist, Care of Chas. Eulert, 317 East 90th Street, New York City; Mr. W. G. Watkins, Botany Department, Columbia University, New York City, and Mr. John W. Thompson, Cleveland High School, Seattle, Washington.

The resignations of Dr. Albert R. Sweetser, Dorothy S. Francis and Mr. John Thompson were accepted with regret.

Officers for the ensuing year were elected as follows:

President—Dr. Edmund W. Sinnott

Vice-Presidents—Dr. C. Stuart Gager and Dr. Marshall A. Howe

Secretary—Dr. Forman T. McLean

Treasurer—Mrs. Helen H. Trelease

Editor—Dr. T. E. Hazen

Business Manager—Dr. Michael Levine

Associate Editors—Albert Francis Blakeslee, Cornelia Lee Carey, Frank Earl Denny, Alexander William Evans, Henry Allan Gleason, Alfred Gundersen, George Tracy Hastings, Marshall Avery Howe, Louis Otto Kunkel, Michael Levine, Arlow Burdette Stout and Sam F. Trelease

Bibliographer—Mrs. B. O. Dodge

Delegate to the Council of the New York Academy of Sciences—Dr. M. A. Howe

Representatives on the Council of the A.A.A.S.—Dr. D. T. MacDougal and Dr. B. O. Dodge.

Under miscellaneous business Mr. Torrey spoke of the press reports of "improvements" about to be initiated in the central valley of Van Cortlandt Park and moved the appointment of a committee to discuss the matter with the Park Commissioner of the Bronx. Mr. Torrey's plea for preservation of the natural condition of this tract was warmly supported by Dr. Karling and Dr. Gager, and the motion was unanimously carried. Presi-

dent Sinnott later appointed on this committee Dr. Merrill, Mr. Torrey and Dr. Howe.

Professor W. G. Waterman of Northwestern University gave an illustrated talk on "Flowers and Native Vegetation."

Meeting adjourned at 9:50 P.M. for refreshments.

Respectfully submitted,

FORMAN T. McLEAN, *Secretary*

#### MEETING OF JANUARY 21, 1931

The meeting was called to order at the New York Botanical Garden at 3:30 P.M. by President Sinnott, with thirty-five members present. Minutes of the meeting of January 6 were read and approved.

Miss Marjorie Cotton, the Croydon, 12 East 86th Street, New York City, was unanimously elected to membership in the club.

The resignations of Miss Emily P. Cohen, Mr. H. M. Romanoff, and Mr. R. W. Woodward were accepted with regret.

Mrs. Arabella McKee, whose name was presented by Dr. Hazen, was elected to life membership in the club.

Reports were read by Dr. Barnhart for the Budget Committee; the Secretary's report and the Treasurer's report by Dr. McLean; and the Editor's report by Dr. Hazen.

Dr. A. H. Graves brought up the subject of welcoming new members into the club and making them feel at home.

On the motion of Dr. Hazen, Dr. Graves was unanimously elected a member of the board of Associate Editors of the club, with the understanding that he serve as acting editor of *TORREYA* during the absence of Mr. Hastings.

A motion was made and seconded that the reports of the other officers be left until a later meeting.

Dr. George F. Avery, Jr., National Research Council Fellow in Botany at Columbia University, gave an interesting talk on the "Structure of Embryos and Seedlings of Grasses," an abstract of which, kindly furnished by Dr. Avery, follows.

The grasses form a very natural and distinctive family of flowering plants, with about 480 genera and nearly 6,000 species. They differ in character from all other families, particularly in structure of embryos, seeds and fruits.

A study of embryos, and the seedling types into which they develop, indicates three general classes of seedling anatomy in the grasses:

1. Those in which early elongation of the axis takes place between the level of the cotyledon and that of the coleoptile ("leaf sheath"), the interval in cross-section showing only a central vascular cylinder—as in *maize*.
2. Same, with the interval in cross-section showing an additional small vascular bundle on one side of the central cylinder—as in *oats*.
3. Those in which there is little or no elongation in this part of the axis, the principal elongation taking place above the coleoptile, as in *wheat*.

In the first two cases (maize and oats) the interval has long been referred to as the "mesocotyl," a term which is shown to be entirely erroneous from evidence which establishes the coleoptile as the first independent leaf above the cotyledon—this interval is then the *first internode*. In the case of wheat, the first internode does not elongate to any extent, the second internode (sheathed by the coleoptile) being the principal region of elongation in the seedling axis. This interpretation makes the grasses homologous in structure with other plants.

Of the approximately 480 genera of grasses, nearly 100 have been investigated by various workers, and all appear to fall in one of the three classes mentioned. Interesting correlations appear to exist between seedling anatomy, geographical distribution, and chromosome number and size—and these in turn agree rather well with the taxonomic groups already established.

The meeting adjourned at 5:00 P.M.

Respectfully submitted,

FORMAN T. MCLEAN, *Secretary*

#### MEETING OF FEBRUARY 3, 1931

The meeting was called to order by President Sinnott at 8:15 P.M. at the American Museum of Natural History.

In the absence of the Secretary the President asked Dr. Hazen to act as Secretary *pro tem*.

Mr. Torrey presented an interesting report of the activities of the field committee for the season of 1930 and outlined the plans for the season of 1931.

The following persons were unanimously elected to membership in the Club:

Miss A. Johanson, and Miss Irene Hackett, Columbia University, proposed by Dr. Illo Hein; Miss Sylvia O. Segall, Mr. William C. Meyer, and Mr. John T. Perry, of Columbia University, proposed by Dr. J. S. Karling.

The scientific program consisted of an illustrated lecture by Mr. George T. Hastings on "Our Native Ferns." The lecture was followed by general comment and discussion by several members. The interest elicited by the speaker and the subject was manifest in the attendance of over 100 members and friends.

The Club adjourned at 9:30 for tea served in the Hall of Birds.

Respectfully submitted,  
TRACY E. HAZEN, *Secretary pro tem*

#### MEETING OF FEBRUARY 18, 1931

The meeting was called to order by President Sinnott at 3:30 P.M. at the New York Botanical Garden with 29 members present.

The minutes of the meetings of January 21 and February 3 were read and approved.

Dr. Merrill gave a brief report on the action taken on improvement of the region about Tippet's Brook, Van Cortlandt Park.

The following persons were unanimously elected to membership in the Club:

Dr. Earl L. Core, West Virginia University, Morgantown, W.Va.; Wanda K. Farr, Boyce Thompson Institute, Yonkers, New York; Dr. R. Kent Beattie, 2032 Belmont Road, Washington, D.C.; Dr. J. W. C. Goethart, Rijks Herbarium, Nonnensteeg, Leiden, Holland.

The resignations of Mr. William J. Downer and Mr. M. French Gilman were accepted with regret.

The scientific program consisted of a talk by Dr. Marshall A. Howe "On Some Travertine-forming Algae" and by Mr. William J. Bonisteel on "Phytochemical Problems in Aconites." The talks were followed by general comment and discussion by several members.

The Club adjourned at 5 P.M.

Respectfully submitted,  
FORMAN T. MCLEAN, *Secretary*